

# **Serial I/O Card™**

## **CompactFlash and PC Card versions**

*Serial I/O and Ruggedized Serial I/O Cards for  
adding a serial communications port to:*

- *Pocket PC 2000 and Pocket PC 2002*
- *Handheld PC Pro and Handheld PC 2000*
- *Windows 95/98/Me/2000/XP notebook*

## **User's Guide**



**socket**  
The Mobile Connection

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# Chapter 1 Introduction

The Socket Serial I/O Cards make it easy to add a serial communications port to your Windows or DOS-based mobile computer, so you can connect your favorite serial peripheral when and where you need it. It's perfect for connecting your mobile computer to a modem, printer, writer for court reporting, GPS receiver, digital camera or other serial device.



The cards add an RS-232 COM port to your mobile computer and feature plug-and-play and hot swapping with most Windows-based mobile computers. Hot swapping is the ability to add and remove devices while a computer is running and have the system recognize the change.

The cards work with the following mobile computers:

- Pocket PC 2000, Pocket PC 2002, HPC 2000 running Windows CE 3.0
- Handheld PC Pro running Windows CE 2.11
- Notebook based on Windows 95/98/Me/2000/XP\*



Socket's software features the Hi-Speed COM Tools, which enable you to use higher baud rates in applications that only let you choose a baud rate up to 115 kbps. There are different versions of the Hi-Speed COM Tools for Windows CE and Windows notebooks.

With Windows CE, 2000, and XP, the Hi-Speed COM Tools also let you quickly identify COM port assignments. Plus, if you are using Windows 2000 or XP, you can use the tools to change the COM port number assigned to your Serial I/O Card.

The standard Serial I/O Card (S-I/O), with removable cable, and Ruggedized Serial I/O Card (R-I/O), with non-removable cable, are both available in PC Card and CompactFlash form factors. All cables have an industry-standard male DB-9 connector.

This *User's Guide* explains how to install the Serial I/O Cards. Except where otherwise noted, "Serial I/O Card" will refer to both Standard and Ruggedized versions of the card.

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\* Windows 95 v4.00.950B; Windows 98; Windows 98 Second Edition

For software updates, please visit: [www.socketcom.com/product/serial.asp](http://www.socketcom.com/product/serial.asp)  
Register the product online at: [www.socketcom.com/prodreg](http://www.socketcom.com/prodreg)

## Package Contents

The Socket Serial I/O Card package includes these items:

- A Socket Serial I/O Card
- A serial cable with DB-9 connector (permanently attached for Ruggedized cards, removable for standard cards)
- The *Serial I/O Installation Disc*



To use a CompactFlash S-I/O in a PC Card slot, you can use a Type I CompactFlash-to-PC Card adapter, available separately. To buy an adapter, please visit: [www.socketcom.com/shop/default.asp](http://www.socketcom.com/shop/default.asp)

# Chapter 2 Setup for Windows CE

This chapter describes how to set up the hardware and software on the following types of Windows-based mobile computers:

- Pocket PC 2000 and Pocket PC 2002
- Handheld PC Pro and Handheld PC 2000

## Installation Steps Summary

Installing the Serial I/O Card takes just a few easy steps.

STEP 1: S-I/O with removable cable only: Attach the cable to the card.

STEP 2: Install the software.

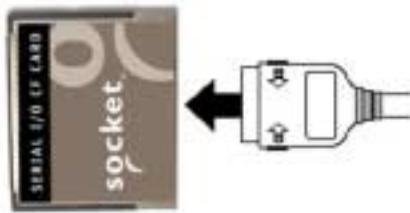
STEP 3: Insert the card into your mobile computer.

OPTIONAL: Use Hi-Speed COM Tools.

## STEP 1: Attach Cable (Removable Cable only)

If using the Serial I/O Card with removable cable, attach the cable to the card.

Press the side latches of the cable connector, insert the connector into the bottom of the card, and release.



The card and cable should join snugly and remain attached after you release the side latches. To remove the cable, press the side latches and pull gently.

***Important! Press on the side latches before pulling the cable from the card! Otherwise, you can damage the connector and card!***

## STEP 2: Install the Software

Follow these instructions to install the software for Windows CE.

1. Make an active connection between the mobile computer and a host PC.



An active connection exists if data can move between the mobile computer and host PC via a serial/Ethernet/USB cable or cradle.

2. Insert the Socket Serial I/O Installation CD into your host PC.



3. Use My Computer or Windows Explorer to access the CD-ROM drive. In the CD, click on SETUP.EXE.
4. Follow the instructions on your screen to install the software for Windows CE.



5. When software installation is complete, disconnect the mobile computer from the host PC. Soft reset the mobile computer by pressing the reset button.

## STEP 3: Insert the Card

### **Warning!**

- *Do NOT insert the card upside down or push the card in too forcefully. Damage may occur!*
- *Removable cable: When inserting the card into the slot, do not shove on the cable connector.*

Insert the card into your mobile computer's expansion slot.

- Insert the card right-side up, with the brown label on top.
- If using a CompactFlash card in a PC Card slot, first insert the card into a CompactFlash-to-PC Card adapter.

*Insert the card  
directly into a  
slot of its size...*



**OR**

*Use an adapter  
to insert a  
CompactFlash  
card into a  
PC Card slot.*



When properly inserted, the card will be fully contained within the slot, with only the connector and cable protruding.

To remove the card, use your mobile computer's card eject button. DO NOT pull on the cable or cable connector, especially if using a removable cable!

## OPTIONAL: Use Hi-Speed COM Tools

Socket's Hi-Speed COM Tools for Windows CE has two main screens: Ports and Advanced. The Ports screen allows you to identify the COM port number assigned to your Serial I/O Card. Advanced users can use the Advanced screens to program a device to work at a baud rate (up to 921 kbps, depending on your card version) not normally available in Windows.

This section covers the following:

- View COM port assignment
- Determine the maximum baud rate of your card
- Map baud rates
- Use advanced options

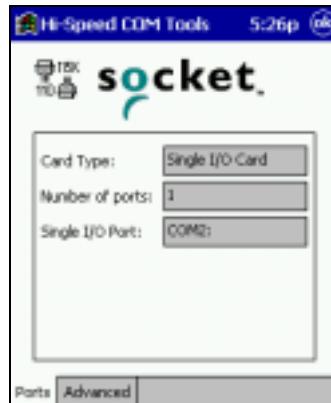
### View COM Port Assignment

1. Pocket PCs: Go to Start | Settings | Connections | Hi-Speed COM Tools.

HPCs: Go to Start | Settings | Control Panel | Hi-Speed COM Tools.



2. Use the **Ports** screen to view the COM port assignment.

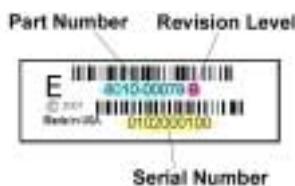


*Note: If you are using a hi-speed card, the Card Type field will report Single I/O Card (HS).*

### **Determine the Maximum Baud Rate of Your Card**

If you plan to use the Hi-Speed COM Tools to map baud rates, it is useful to know the maximum baud rate that your Serial I/O Card can handle. The most recent revisions of the card can handle higher baud rates, up to 921 kbps. Check the Revision Level (Rev) of your card and refer to the chart below to determine the maximum baud rate of your card.

*Note: The maximum baud rate varies with your device's operating system, processor speed, and other variables. Higher baud rates may not work correctly on some older devices.*



Card Type	Part Number	Not Compatible with Hi-Speed COM Tools	Maximum Baud Rate	
			230 kbps	921 kbps
CF with Removable cable	8510-00094 8010-00075	Rev A	Rev B	Rev C or later
CF with Ruggedized cable	8510-00115 8010-00087	Rev A	Rev B	Rev C or later
Custom CF Card	8510-00155	N/A	Rev A	N/A
PC Card with Removable cable	8510-00012 8010-00012	Rev A-J	Rev K-L	Rev M or later
PC Card with Ruggedized cable	8510-00073 8010-00065	Rev A-D	Rev E-F	Rev G or later
Custom PC Card	8010-00074 8510-00088	Rev A	Rev B	N/A
	8010-00095 8010-00096 8510-00119 8510-00121	N/A	Rev A	N/A

## **Map Baud Rates (ADVANCED USERS ONLY!)**

### **What is baud rate mapping?**

Most Windows applications offer baud rate settings only up to 115 kbps, because this is the maximum speed of typical serial ports. What if you need or want to transfer data faster than 115 kbps? The latest versions of Socket's Serial I/O Cards and software were designed to handle much higher speeds, up to 921 kbps. Many Windows applications can handle speeds higher than 115 kbps, although they do not list baud rates higher than 115 kbps.

Socket has created the Hi-Speed COM Tools to enable you to use your COM port at higher baud rates in applications that only let you choose a baud rate up to 115 kbps. The program essentially lets you use one of the available baud rate values as a placeholder for a new baud rate of your choice. This is known as "mapping" a new baud rate to an available baud rate option.

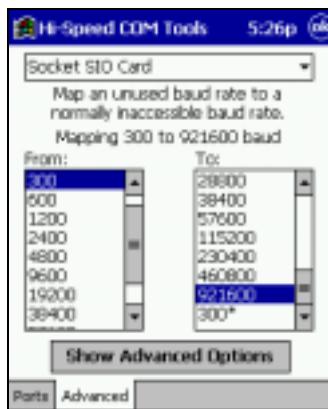
For example, if you need your device to work at a baud rate of 230,400 bps, most Windows applications will not list 230,400 bps as a baud rate option. Hi-Speed COM Tools cannot change which options are listed, but it does let you program one of the options to work at 230,400 bps (e.g., You can change the "300" bps option to actually work at 230,400 bps).

*Note:*

- *Some applications (e.g., those for Windows 95, 98, and Me) may have timing issues when you set them to baud rates that are higher than they were designed for.*
- *After mapping a baud rate to a new speed, you can re-map it back to its original speed.*

1. Make sure the serial port is not already open on your device.
2. Tap on the **Advanced** tab.
3. In the drop-down menu at the top of the screen, select **Socket SIO Card** or **Socket SIO HS Card**.

- The screen has a **From:** field and a **To:** field.
- The **From:** field lists baud rate options available in typical applications. The number that you select in the **From:** field will be the baud rate option that you change to function at a new speed.
- The **To:** field lists the baud rates you can choose from for your new speed. Included in the **To:** list are baud rates (e.g., 921,600 bps) that are not available as options in typical applications.



- Use the **From:** and **To:** fields to scroll and select the appropriate baud rates, then tap **ok**.

*Example: Select “300” in the **From:** field and “921600” in the **To:** field and tap **ok**. Now, whenever you select a baud rate of 300 bps in a Windows application, your COM port will communicate at 921,600 bps instead.*

Notes:

- After mapping a baud rate option to communicate at a new speed, the original speed will no longer be available unless you map baud rates again.
- Make sure the new baud rate does not exceed the maximum baud rate for your card (see previous chart)
- The new baud rate will not apply until you tap **ok** and exit the Hi-Speed COM Tools.

**Warning!**

*DO NOT set the baud rate higher than the maximum baud rate for your card, or you may experience functionality problems! Refer to the previous chart to determine the maximum baud rate for your card.*

## **Use Advanced Options**

The advanced options of the Hi-Speed COM Tools allow you to adjust flow control properties and/or set a custom baud rate.

***WARNING! In most communication settings, these options will not need to be altered. Do not modify these options if you do not understand their function, or you may cause functionality problems with existing communication settings.***

### ***Modify Flow Control Properties***

1. From the initial Advanced screen, tap on **Show Advanced Options**. The next screen will let you modify flow control options.



2. To modify flow control properties, use the check boxes and bullets as appropriate.

If your application expects certain signals not supported by your Data Communication Equipment (DCE) hardware, you may want to use a “simulate” option. Examples of DCE include modems, printers, etc.

- **Simulate DCD** (Data Carrier Detect) — The DCE is receiving a carrier signal from the other end of the telephone circuit.
- **Simulate CTS** (Clear to Send) — The DCE is clear to send.
- **Simulate DSR** (Data Set Ready) — The DCE is ready to send data from the terminal.

If your DCE expects certain signals not supported by your application, you may want to use a “force” option.

- **Force DTR** (Data Terminal Ready) — Can be used for hardware control. A Control signal sent from the DTE to the DCE indicating that the DTE is powered on and ready to communicate.
- **Force RTS** (Request to Send) — One of the control signals on a standard RS-232 connector. It places the modem in the originate mode so it can begin to send.

3. After modifying your flow control settings, tap **ok** to apply the changes and exit the Hi-Speed COM Tools.

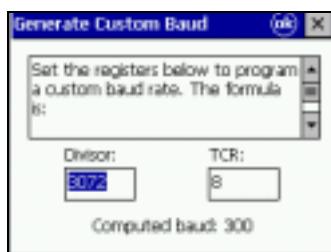
Alternatively, to return to the previous screen, tap **Show Baud Rates**.

To create a new baud rate not listed in the previous screen, tap **Set Custom Baud Rate**.

*Important! Your changes will not apply until you tap **ok** and exit the Hi-Speed COM Tools!*

#### **Set a Custom Baud Rate**

1. From the initial Advanced screen, tap on **Show Advanced Options**. In the next screen, tap on **Set Custom Baud Rate**.
2. Use the **Generate Custom Baud** screen to create a new baud rate not listed in the **To:** field in the first Advanced screen. Enter the **Divisor** and **TCR** and tap **ok**.



3. In the next screen, if you are done modifying your COM port settings, tap **ok** to exit the Hi-Speed COM Tools.

To return to the initial baud mapping screen, tap **Show Baud Rates**.

*Important! Your changes will not apply until you tap **ok** and exit the Hi-Speed COM Tools!*

# Chapter 3 Setup for Windows 95/98/Me/2000/XP

This chapter describes how to set up the hardware and software on a notebook computer running Windows 95/98/Me/2000/XP. Please note that the Serial I/O Cards work with only certain versions of Windows 95 and 98: Windows 95 v4.00.950B, Windows 98 and Windows 98 Second Edition.

## Installation Steps Summary

- STEP 1: Insert the installation CD into your computer.
- STEP 2: S-I/O with removable cable only: Attach the cable to the card.
- STEP 3: Insert the card into your mobile computer.
- STEP 4: Install the software.
- OPTIONAL: Use Hi-Speed COM Port Tools.

## STEP 1: Insert the Installation CD

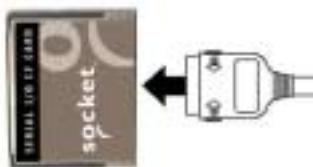
Insert the *Serial I/O Installation CD* into your computer.



## STEP 2: Attach Cable (Removable Cable only)

If using the standard version of the Serial I/O Card, with removable cable, attach the cable to the card.

Pressing the side latches of the cable connector, insert the connector into the bottom of the card then release.



The card and cable should join snugly and remain attached after you release the side latches. To remove the cable, press the side latches and pull gently.

***Important! Press on the side latches before pulling the cable from the card! Otherwise, you can damage the connector and card!***

## STEP 3: Insert the Card

### ***Important!***

- *Insert the card BEFORE installing the software!*
- *Do NOT insert the card upside down or push the card in forcefully.  
Damage may occur!*

### **PC Card**

Insert a Serial I/O PC Card directly into the PC Card slot of your computer. Make sure the card is right-side up, with the brown label on top.



### **CompactFlash Card**

Plug the Serial I/O CompactFlash Card into a CompactFlash-to-PC Card adapter. Make sure the card is right-side up, with the brown label on top. Then insert the combined unit into the PC Card slot of your computer.



To remove the card, use your computer's card eject button. DO NOT pull on the cable or cable connector, or damage may occur!

## STEP 4: Install the Software

After inserting the card, complete these steps for software installation:

1. The first time you insert the card into your computer, a new hardware or device driver wizard will appear. Follow the wizard to install the Serial I/O drivers. Make the appropriate selections below for your Windows version as prompted:

*Important! The installation CD must still be inside your computer!*

a. Windows 95 —

- In the first screen, click **Next>**.
- Windows should automatically search for the drivers on the CD. Follow the remaining screens until installation is complete.

b. Windows 98 —

- In the first screen, click **Next>**.
- Select **Search for the best driver for your device (Recommended)**.



- In the next screen, check **CD-ROM drive**. Click **Next>**.
- Follow the remaining screens until installation is complete.

c. Windows Me —

- In the first screen, click **Next>**.
- Select **Search for the best driver for your device (Recommended)**. Click **Next>**.
- In the next screen, check **CD-ROM drive** and click **Next>**.
- Follow the remaining screens until installation is complete.

d. Windows 2000 —

- In the first screen, click **Next>**.
- Select **Search for a suitable driver for my device (recommended)**. Click **Next>**.
- In the next screen, check **CD-ROM drive**. Click **Next>**.
- Follow the remaining screens until installation is complete.

e. Windows XP —

- Make sure the option **Install the software automatically (Recommended)** is selected. Click **Next>**.



- If a screen warns you that the software has not passed Windows Logo testing, click **Continue Anyway**.



- Follow the remaining instructions until installation is complete.

## OPTIONAL: Use Hi-Speed COM Tools

Socket's Hi-Speed COM Tools have two main sections: Card Status and Baud Rate Mapping. The Card Status section works only with Windows 2000/XP and allows you to identify and/or modify the COM port assigned to any Socket card installed on your computer. You can use the Baud Rate Mapping section to program your computer to work at a baud rate (up to 921 kbps, depending on your card version) not normally available in Windows.

This section covers the following:

- Start the program
- View/modify COM port assignments (Windows 2000/XP only)
- Determine the maximum baud rate of your card
- Map baud rates
- Access help information
- Exit the program

### Start the Program

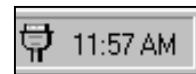
#### 1. Windows 95/98/Me/2000:

Go to Start | Settings | Control Panel | Hi-Speed COM Tools.

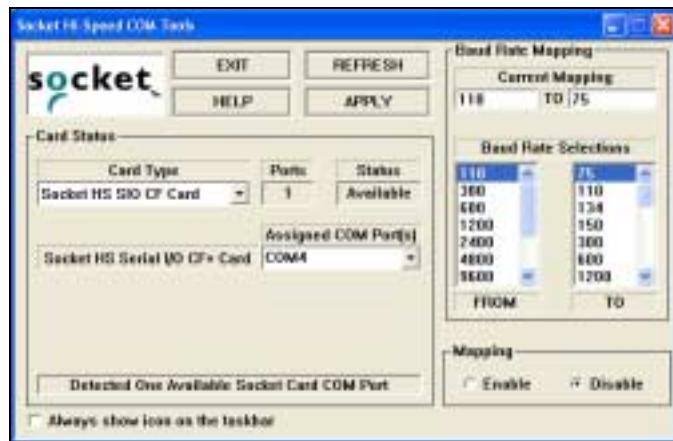
Windows XP: Go to Start | Control Panel | Hi-Speed COM Tools.



Alternatively, you can access the tools via a task tray icon:



#### 2. The Socket Hi-Speed COM Tools screen will appear.

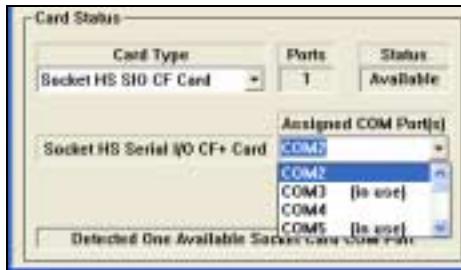


3. If desired, check **Always show icon on the taskbar** at the bottom of the screen. This will place an icon on the task tray so the program can be accessed later.

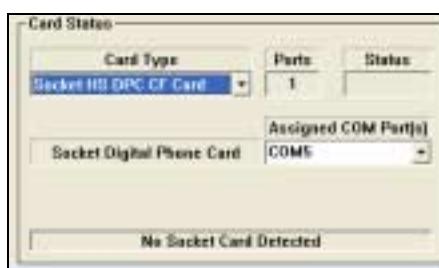
### **View/Modify COM Port Assignments (Windows 2000/XP only)**

The Card Status section provides COM port information. Please note that this feature only works with Windows 2000 and XP.

- **Card Type:** Make sure the correct Socket card is selected. Any high-speed Socket cards previously installed on your computer will appear in the drop-down menu.



- **Ports:** Reports the number of ports detected for the selected card.
- **Status:** Reports the availability status of the port(s)
- **Assigned COM Port(s):** Shows the COM port(s) assigned to the selected card. To change the port assignment, use the drop-down menu to select another port. Ports already in use will be labeled as {in use}.
- Card detection status: The field at the bottom reports how many available Socket COM ports your computer detects. If no card is inserted, a **No Socket Card Detected** message will appear.



To update the Card Status report, click **REFRESH**.

After making any changes, click **APPLY**.

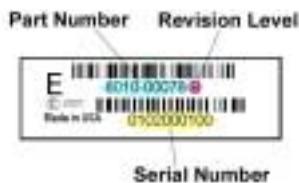
*Note: If you modify any settings, the changes will only take effect after you click **APPLY**.*

*If you modify settings when you have a connection with a serial I/O port open, then the settings will not take effect until you disconnect and reconnect the port.*

### **Determine the Maximum Baud Rate of Your Card**

If you plan to use the Hi-Speed COM Tools to map baud rates, it is useful to know the maximum baud rate that your Socket Serial I/O Card can handle. Later revisions of the card can handle higher baud rates, up to 921 kbps. Check the Revision Level (Rev) of your card and refer to the chart below to determine the maximum baud rate of your card.

*Note: The maximum baud rate varies with your device's operating system, processor speed, and other variables. Higher baud rates may not work correctly on some older computers.*



Card Type	Part Number	Not Compatible with Hi-Speed COM Tools	Maximum Baud Rate	
			230 kbps	921 kbps
CF with Removable cable	8510-00094 8010-00075	Rev A	Rev B	Rev C or later
CF with Ruggedized cable	8510-00115 8010-00087	Rev A	Rev B	Rev C or later
Custom CF Card	8510-00155	N/A	Rev A	N/A
PC Card with Removable cable	8510-00012 8010-00012	Rev A-J	Rev K-L	Rev M or later
PC Card with Ruggedized cable	8510-00073 8010-00065	Rev A-D	Rev E-F	Rev G or later
Custom PC Card	8010-00074 8510-00088	Rev A	Rev B	N/A
	8010-00095 8010-00096 8510-00119 8510-00121	N/A	Rev A	N/A

## Map Baud Rates

### **What is baud rate mapping?**

Most Windows applications offer baud rate settings only up to 115 kbps, because this is the maximum speed of typical serial ports. What if you need or want to transfer data faster than 115 kbps? The latest versions of Socket's Serial I/O Cards and software were designed to handle much higher speeds, up to 921 kbps. Many Windows applications can handle speeds higher than 115 kbps, although they do not list baud rates higher than 115 kbps.

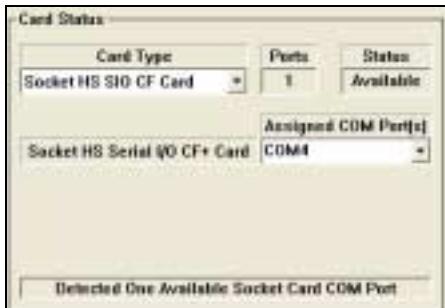
Socket has created the Hi-Speed COM Tools to enable you to use your COM port at higher baud rates in applications that only let you choose a baud rate up to 115 kbps. The program essentially lets you use one of the available baud rate values as a placeholder for a new baud rate of your choice. This is known as "mapping" a new baud rate to an available baud rate option.

For example, if you need your device to work at a baud rate of 230,400 bps, most Windows applications will not list 230,400 bps as a baud rate option. Hi-Speed COM Tools cannot change which options are listed, but it does let you program one of the options to work at 230,400 bps (e.g., You can change the "300" bps option to actually work at 230,400 bps).

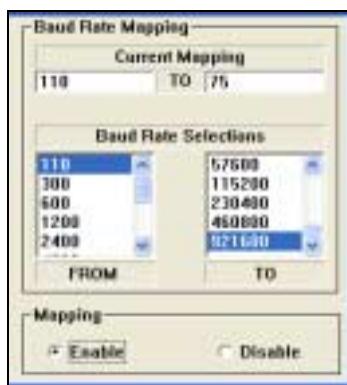
*Note:*

- *Some applications (e.g., those for Windows 95, 98, and Me) may have timing issues when you set them to baud rates that are higher than they were designed for.*
- *After mapping a baud rate to a new speed, you can re-map it back to its original speed by changing or disabling the mapping.*

1. Make sure the serial port is not already open on your computer.
2. In the Card Status section, make sure the correct **Card Type** is chosen and the correct card is listed.



3. The Baud Rate Mapping section has a **FROM** field and a **TO** field.
  - The **FROM** field lists baud rate options available in typical applications. The number that you select in the **FROM** field will be the baud rate option that you change to function at a new speed.
  - The **TO** field lists the baud rates you can choose from for your new speed. Included in the **TO** list are baud rates (e.g., 921,600 bps) that are not available as options in typical applications.
6. Use the **FROM** and **TO** fields to scroll and select the appropriate baud rates. Select **Enable** and click **APPLY**.



*Example: Select “110” in the **FROM** field and “921600” in the **TO** field. Select **Enable** and click **APPLY**. Now, whenever you select a baud rate of 110 bps in a Windows application, your COM port will communicate at 921,600 bps instead.*

Notes:

- After mapping a baud rate option to communicate at a new speed, the original speed will no longer be available unless you map baud rates again.
- Make sure the new baud rate does not exceed the maximum baud rate for your card (see previous chart)
- The new baud rate will not apply until you click **Enable** tap **APPLY**.
- *If you modify settings when a connection with a serial I/O port is open, then the settings will not take effect until you disconnect and reconnect from the port.*

**Warning!**

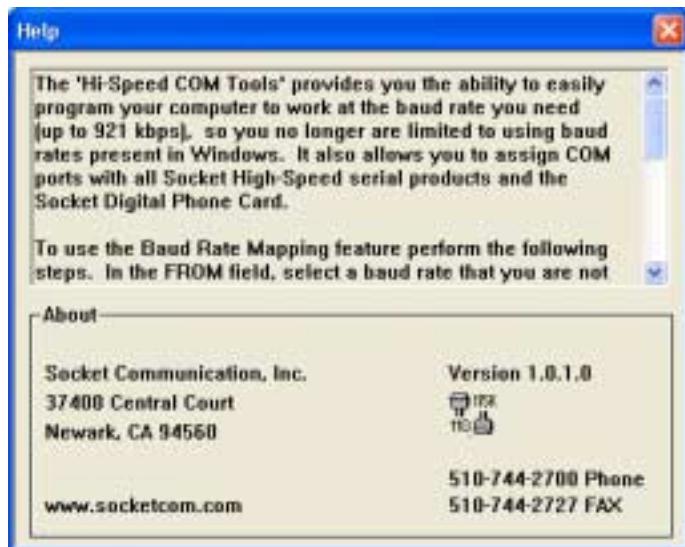
*DO NOT set the baud rate higher than the maximum baud rate for your card, or you may experience functionality problems! Refer to the previous chart to determine the maximum baud rate for your card.*

4. To revert a Windows baud rate that you mapped back to the original speed, select **Disable**, then click **APPLY**.

Alternatively, you can select the original baud rate in both the **FROM** and **TO** fields, select **Enable**, then click **APPLY**.

#### **Access Help Information**

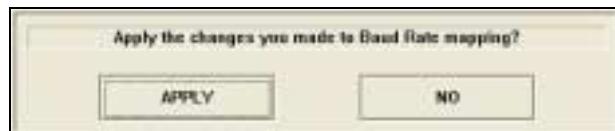
For help with the Hi-Speed COM Tools or information about the software, click on **Help**.



#### **Exit the Program**

When done with the tools, click **EXIT**.

*Note: If you forgot to click **APPLY** after changing settings in the Hi-Speed COM Tools, then when you click **EXIT**, a screen will appear asking if you want to apply the changes. Click **APPLY** to have the changes take effect.*



# Appendix A Specifications

## *Physical Characteristics:*

### **PC Card:**

<b>Dimensions:</b>	3.37 x 2.13 x 0.197 in (85.6 x 54.0 x 5.0 mm)
<b>Weight:</b>	1 oz (28.4 g) with no cable 2.5 oz (70.9 g) with permanent cable

### **CompactFlash Card:**

<b>Dimensions:</b>	1.433 x 1.685 x 0.130 in (36.4 x 42.8 x 3.3mm)
<b>Weight:</b>	0.32 oz (9 g) with no cable 1.82 oz (51.5 g) with permanent cable

### **Interconnect Cable**

<b>Standard Card:</b>	12 in (305 mm) long removable
<b>Ruggedized Card:</b>	16 in (406 mm) long fixed
<b>Serial Connector:</b>	9-Pin D Shell Male
<b>Removable Cable Weight:</b>	1.1 oz (31.2 g)

## *Environmental Conditions:*

<b>Operating Temperature:</b>	0°C to +55°C
<b>Storage Temperature:</b>	-20°C to +65°C
<b>Relative Humidity:</b>	10% to 90% non-condensing

## *Power Consumption (power supplied by host):*

### **PC Card:**

<b>Inactive:</b>	5 mA (12 mW)
<b>Active:</b>	13 mA (65 mW)

### **CompactFlash Card:**

#### **With 3.3V Supply:**

<b>Inactive:</b>	2.4 mA (8 mW)
<b>Active:</b>	8 mA (26 mW)

#### **With 5V Supply:**

<b>Inactive:</b>	4.3 mA (22 mW)
<b>Active:</b>	13 mA (65 mW)

## *Operating System Support:*

Windows CE HPC Pro 2.11
Windows CE HPC 2000, Pocket PC 2000, Pocket PC 2002
Windows 95 (v4.00.950B)/98/98 Second Edition/Me/2000/XP

An enabler for DOS is available to programmers and developers. Please contact Socket technical support for more information.

*Interface Standards:*

**PC Card Interface:** PCMCIA Release 8.0, Type II  
JEIDA 4.1 Compliant

**CompactFlash Interface:** CompactFlash I/O Type I

**Serial Communications:** Asynchronous RS-232;  
16550 type UART

*Software Included:*

**Windows 95/98/98SE/2000/Me/XP .INF**

**Windows CE**

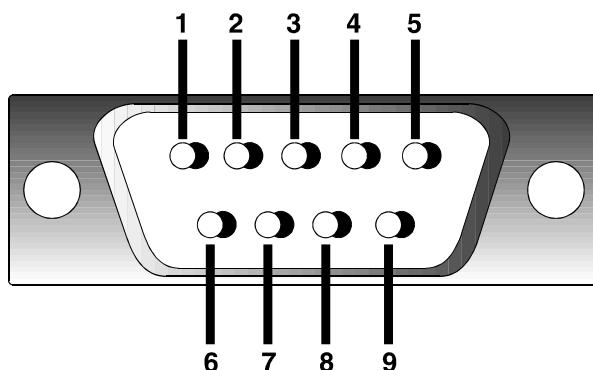
**Media:** CD ROM

*Programmable Characteristics:*

**Character length:** 5-, 6-, 7- or 8-bit  
**Parity:** Even, odd or none  
**Baud rate generation:** 921K baud maximum

*Pin Assignments for DB-9 Connector:*

Pin Number	Function
1	Data Carrier Detect
2	Receive Data
3	Transmit Data
4	Data Transmit Ready
5	Ground
6	Data Set Ready
7	Request to Send
8	Clear to Send
9	Ring Indicator



## Appendix B Setup for MS-DOS

An enabler for MS-DOS is available for programmers and developers. This appendix briefly describes how to set up the hardware and software on a notebook computer running MS-DOS. Please contact Socket technical support for more information.

*Note: The Hi-Speed COM Tools do not work with MS-DOS.*

### STEP 1: ATTACH CABLE TO CARD (IF USING REMOVABLE CABLE).

If using the standard version of the Serial I/O Card, with removable cable, attach the cable to the card. Pressing the side latches of the cable connector, insert the connector into the bottom of the card then release.

The card and cable should join snugly and remain attached after you release the side latches. To remove the cable, press the side latches and pull gently.

***Important! Press on the side latches before pulling the cable from the card! Otherwise, you can damage the connector and card!***

### STEP 2:INSTALL THE SOFTWARE.

For DOS, you must install the enabler, then insert and activate the card.

1. Make sure your computer's PCMCIA card controllers support a 16-bit PCIC mode. In most cases, you can check from the system BIOS menu. If your computer has a different mode (e.g., 32-bit Cardbus), consult with your computer manufacturer for help in changing the settings.

***Important! The DOS enabler only works properly if your notebook's PCMCIA card controllers support a 16-bit PCIC mode!***

2. If you have Card Services software installed on the computer, disable it. Contact your computer manufacturer for help.
3. Insert the *Serial I/O Installation CD* into your CD-ROM drive.
4. Type: **X:\INSTALL** (replace X with your CD-ROM drive letter).
5. Follow the instructions on the screen until installation is complete.

### STEP 3:INSERT THE CARD INTO YOUR COMPUTER.

Insert the Serial I/O Card into your mobile computer's PC Card slot. Make sure the card is right-side up, with the brown label on top. If using a CompactFlash card, use a CompactFlash-to-PC Card adapter.

*Warning! DO NOT insert the card upside down or push the card in forcefully. Damage may occur!*

### STEP 4: ACTIVATE THE CARD

After inserting the S-I/O into the PC Card slot, you must activate the card.

1. Type: **STARTCOM**
2. Your screen should display the COM port number used by the Serial I/O Card. Make note of the COM port number, which will be the address of any serial device you attach to the Serial I/O Card.

The Serial I/O Card should appear as a standard COM port to any MS-DOS or Windows application. For more information on Socket's direct enabler, please refer to the README.TXT file on the *Serial I/O Installation Disc*.

# Appendix C Support Resources

## Technical Support

If you have trouble installing or using the Serial I/O Card, please refer to the “Troubleshooting” section of this *User’s Guide*. If problems persist, contact Socket’s technical support department.

***IMPORTANT! To obtain technical support for your product, you must first register your product online at [www.socketcom.com/prodreg](http://www.socketcom.com/prodreg).***

After you register your product, you can use the product registration webpage to submit an email inquiry directly to a technical support specialist for priority service, view product information, register additional products, view a complete database of FAQs and view a history of technical support activity for previous support issues.

Alternatively, after you register your product, you can call Socket technical support at 510-744-2720 to speak to an available technical support specialist or leave a message for a technical support specialist to speak to you at a specific time and date. If leaving a phone message, please specify the email address that you registered the product under, so that we can view your user profile.

*Registered users receive priority for support.*

## Users’ Forum

If you would like to discuss the Socket Bluetooth Connection Kit with other users, visit Socket’s users’ forum at: [www.socketforum.com](http://www.socketforum.com)

*Note: Socket may, but is not obligated to, monitor or review any areas on the Site where users transmit or post Communications or communicate solely with each other, including but not limited to the user forum, and the content of any such Communications. Socket, however, will have no liability related to the content of any such Communications, whether or not arising under the laws of copyright, libel, privacy, obscenity, or otherwise. Socket retains the right to remove messages that include any material Socket deems abusive, defamatory, obscene or otherwise unacceptable.*

Please refrain from disassembling the Serial I/O Card. Disassembly of this device will void the product warranty.

## **Limited Warranty**

Socket Communications Incorporated (Socket) warrants this product against defects in material and workmanship, under normal use and service, for the following period from the date of purchase:

Plug-in card: Lifetime (Three years if not registered)

Non-removable cable, if included: Lifetime (Three years if not registered)

Removable cable, if included: 90 days

Incompatibility is not a defect covered by Socket's warranty. During the warranty period, Socket will, at its option, repair or replace the defective product at no charge when furnished with proof of retail purchase, provided that you deliver the product to Socket or to an authorized Socket Service Center.

The returned product must be accompanied by a return material authorization (RMA) number issued by Socket or by Socket's Authorized Service Center. If you ship the product, you must use the original container or equivalent and you must pay the shipping charges to Socket. Socket will pay shipping charges back to any location in the contiguous United States. This warranty applies only to the original retail purchaser and is not transferable.

Socket may, at its option, replace or repair the product with new or reconditioned parts and the returned product becomes Socket's property. Socket warrants the repaired or replaced products to be free from defects in material or workmanship for ninety (90) days after the return shipping date, or for the duration of the original warranty period, whichever is greater.

This warranty does not cover the replacement of products damaged by abuse, accident, misuse or misapplication, nor as a result of service or modification other than by Socket.

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This product may contain fully tested, recycled parts, warranted as if new.

For warranty information, phone (510) 744-2700.

## **Limited Software Warranty**

**LIMITED WARRANTY.** SOCKET warrants that the original disk or CD ROM is free from defects for 90 days from the date of delivery of the SOFTWARE.

**CUSTOMER REMEDIES.** SOCKET'S entire liability and your exclusive remedy shall be, at SOCKET'S option, either (a) return of the price paid or (b) replacement of the SOFTWARE which does not meet SOCKET'S Limited Warranty and which is returned to SOCKET with a copy of your receipt. Any replacement SOFTWARE will be warranted for the remainder of the original warranty period or 30 days, whichever is longer. **THESE REMEDIES ARE NOT AVAILABLE OUTSIDE OF THE UNITED STATES OF AMERICA.**

**NO OTHER WARRANTIES.** SOCKET disclaims all other warranties, either express or implied, including but not limited to implied warranties of merchantability and fitness for a particular purpose, with respect to the SOFTWARE and the accompanying written materials. This limited warranty gives you specific legal rights. You may have others which vary from state to state.

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The Serial I/O Card includes technology licensed under United States Patent Nos. 4,543,450, 4,603,320, 4,686,506, and 4,972,470.

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Feel free to contact SOCKET COMMUNICATIONS at:

<b>Socket Communications, Inc.</b> 37400 Central Court Newark, CA 94560	Phone: (510) 744-2700 Fax: (510) 744-2727
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Other than the above, Socket Communications can assume no responsibility for anything resulting from the application of information contained in this manual.

Please refrain from any applications of the Socket product that are not described in this manual. Socket Communications also requests that you refrain from disassembling the card. Disassembly of this device will void the product warranty.

You can track new product releases, software updates and technical bulletins by visiting Socket's web page at: [www.socketcom.com](http://www.socketcom.com).

## Regulatory Compliance

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. This equipment is also CE EN55024:1998 and C-TICK compliant. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his or her own expense.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user may try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna of the radio or television.
- Increase the distance separating the equipment and the receiver.
- Connect the equipment to an outlet on a different branch circuit than that of the receiver.
- Consult the dealer or an experienced radio/TV technician for help.

The user may find the following booklet helpful:

*How to Identify and Resolve Radio-TV Interference Problems*

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402.



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